

## § 2.107

## 47 CFR Ch. I (10–1–11 Edition)

G131 Federal stations in the radiolocation service operating in the band 5470–5650 MHz, with the exception of ground-based radars used for meteorological purposes operating in the band 5600–5650 MHz, shall not cause harmful interference to, nor claim protection from, Federal stations in the maritime radionavigation service.

G132 Use of the radionavigation-satellite service in the band 1215–1240 MHz shall be subject to the condition that no harmful interference is caused to, and no protection is claimed from, the radionavigation service authorized under ITU Radio Regulation No. 5.331. Furthermore, the use of the radionavigation-satellite service in the band 1215–1240 MHz shall be subject to the condition that no harmful interference is caused to the radiolocation service. ITU Radio Regulation No. 5.43 shall not apply in respect of the radiolocation service. ITU Resolution 608 (WRC-03) shall apply.

G133 In the band 7190–7235 MHz, emissions to deep space are prohibited. Geostationary satellites in the space research service operating in the band 7190–7235 MHz shall not claim protection from existing and future stations in the fixed service and ITU Radio Regulation No. 5.43A does not apply.

G134 In the band 7190–7235 MHz, Federal earth stations operating in the meteorological-satellite service (Earth-to-space) may be authorized subject to the following conditions:

- (a) Earth stations are limited to those communicating with the Department of Commerce Geostationary Operational Environmental Satellites (GOES).
- (b) There shall not be more than five earth stations authorized at one time.
- (c) The GOES satellite receiver shall not claim protection from existing and future stations in the fixed service (ITU Radio Regulation No. 5.43A does not apply).

[49 FR 2373, Jan. 19, 1984]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 2.106, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at [www.fdsys.gov](http://www.fdsys.gov).

### § 2.107 Radio astronomy station notification.

(a) Pursuant to No. 1492 of Article 13 and Section F of Appendix 3 to the international *Radio Regulations* (Geneva, 1982), operators of radio astronomy stations desiring international recognition of their use of specific radio astronomy frequencies or bands of frequencies for reception, should file the following information with the Commission for inclusion in the Master International Frequency Register:

(1) The center of the frequency band observed, in kilohertz up to 28,000 kHz inclusive, in megahertz above 28,000 kHz to 10,500 MHz inclusive and in gigahertz above 10,500 MHz.

(2) The date (actual or foreseen, as appropriate) when reception of the frequency band begins.

(3) The name and location of the station, including geographical coordinates in degrees and minutes.

(4) The width of the frequency band (in kHz) observed by the station.

(5) The antenna type and dimensions, effective area and angular coverage in azimuth and elevation.

(6) The regular hours of reception (in UTC) of the observed frequency.

(7) The overall receiving system noise temperature (in kelvins) referred to the output of the receiving antenna.

(8) The class of observations to be taken. Class A observations are those in which the sensitivity of the equipment is not a primary factor. Class B observations are those of such a nature that they can be made only with advanced low-noise receivers using the best techniques.

(9) The name and mailing address of the operator.

(b) The permanent discontinuance of observations, or any change to the information above, should also be filed with the Commission.

(c) Observations being conducted on frequencies or frequency bands not allocated to the radio astronomy service should be reported as in paragraph (a) of this section for information purposes. Information in this category will not be submitted for entry in the Master International Frequency Register and protection from interference will not be afforded such operations by stations in other services.

### § 2.108 Policy regarding the use of the fixed-satellite allocations in the 3.6–3.7, 4.5–4.8, and 5.85–5.925 GHz bands.

The use of the fixed-satellite allocations in the United States in the above bands will be governed by footnote US245. Use of the fixed-satellite service allocations in these bands is for the international fixed-satellite service, that is, for international inter-continental communications. Case-by-case electromagnetic compatibility analysis

is required with all users of the bands. It is anticipated that one earth station on each coast can be successfully coordinated. Specific locations of these earth stations depend upon service requirements and case-by-case EMC analyses that demonstrate compatible operations.

### Subpart C—Emissions

#### § 2.201 Emission, modulation, and transmission characteristics.

The following system of designating emission, modulation, and transmission characteristics shall be employed.

(a) Emissions are designated according to their classification and their necessary bandwidth.

(b) Three symbols are used to describe the basic characteristics of emissions. Emissions are classified and symbolized according to the following characteristics:

(1) First symbol—type of modulation of the main carrier;

(2) Second symbol—nature of signal(s) modulating the main carrier;

(3) Third symbol—type of information to be transmitted.

NOTE TO PARAGRAPH (B): Two additional symbols for the classification of emissions may be added for a more complete description of an emission. See Appendix 1, Sub-Section IIB of the ITU *Radio Regulations* for the specifications of these fourth and fifth symbols. Use of these symbols is not required by the Commission.

(c) First Symbol—types of modulation of the main carrier:

- |   |   |
|---|---|
| (1) Emission of an unmodulated carrier .....  | N |
| (2) Emission in which the main carrier is amplitude-modulated (including cases where sub-carriers are angle-modulated): |   |
| —Double-sideband .....  | A |
| —Single-sideband, full carrier .....  | H |
| —Single-sideband, reduced or variable level carrier .....   | R |
| —Single-sideband, suppressed carrier .....  | J |
| —Independent sidebands .....  | B |
| —Vestigial sideband .....   | C |
| (3) Emission in which the main carrier is angle-modulated:  |   |
| —Frequency modulation .....   | F |
| —Phase modulation .....   | G |

NOTE: Whenever frequency modulation “F” is indicated, Phase modulation “G” is also acceptable.

- |   |   |
|---|---|
| (4) Emission in which the main carrier is amplitude and angle-modulated either simultaneously or in a pre-established sequence .. | D |
| (5) Emission of pulses: <sup>1</sup>  |   |

|                                       |   |
|---------------------------------------|---|
| —Sequence of unmodulated pulses ..... | P |
|---------------------------------------|---|

—A sequence of pulses:

- |   |   |
|---|---|
| —Modulated in amplitude .....   | K |
| —Modulated in width/duration ..   | L |
| —Modulated in position/phase ..   | M |
| —In which the carrier is angle-modulated during the period of the pulse ..... | Q |
| —Which is a combination of the foregoing or is produced by other means .....  | V |

|   |   |
|---|---|
| (6) Cases not covered above, in which an emission consists of the main carrier modulated, either simultaneously or in a pre-established sequence, in a combination of two or more of the following modes: amplitude, angle, pulse ... | W |
|---|---|

|                                     |   |
|-------------------------------------|---|
| (7) Cases not otherwise covered ... | X |
|-------------------------------------|---|

<sup>1</sup>Emissions where the main carrier is directly modulated by a signal which has been coded into quantized form (e.g. pulse code modulation) should be designated under (2) or (3).

(d) Second Symbol—nature of signal(s) modulating the main carrier:

- |   |   |
|---|---|
| (1) No modulating signal .....  | 0 |
| (2) A single channel containing quantized or digital information without the use of a modulating sub-carrier, excluding time-division multiplex .....             | 1 |
| (3) A single channel containing quantized or digital information with the use of a modulating sub-carrier, excluding time-division multiplex .....                | 2 |
| (4) A single channel containing analogue information .....  | 3 |
| (5) Two or more channels containing quantized or digital information .....  | 7 |
| (6) Two or more channels containing analogue information .....  | 8 |
| (7) Composite system with one or more channels containing quantized or digital information, together with one or more channels containing analogue information .. | 9 |
| (8) Cases not otherwise covered ...   | X |